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Chiropractic Care of an 8-Year-Old Girl With Nonorganic, Primary Nocturnal Enuresis: A Case Report

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Abstract

Objective: The purpose of this case report is to describe the chiropractic management of an 8-year-old girl with nonorganic, primary nocturnal enuresis.

Clinical Features: An 8-year-old female patient presented to a chiropractic clinic with persistent nighttime bedwetting. The patient experienced enuresis, on average, 7 nights per week. The patient presented with no other comorbidities or complaints, such as low back or pelvic pain.

Intervention and Outcomes: Chiropractic treatment included high-velocity, low-amplitude manipulation of the left sacroiliac joint over 3 visits. Follow-up at 3 months revealed only 3 subsequent episodes of nocturnal enuresis.

Conclusion: This patient reported the resolution of nonorganic, primary nocturnal enuresis after receiving a series of side-posture chiropractic manipulations of the left sacroiliac joint.

Introduction

Nocturnal enuresis is involuntary voiding of urine during sleep, in the absence of organic disease, in individuals at a developmental age of 5 years or older.[1] It is a relatively common complaint, with an estimated prevalence of around 15% to 20% of 5-year-olds, 5% of 10-year-olds, and 1% of those 15 years and older.[1] Nighttime bedwetting is a socially disruptive and emotionally stressful condition that may bring stigma, stress, and inconvenience to both those with nocturnal enuresis and their families.[1]

The etiology of nocturnal enuresis is unclear.[1] Suggested possible causes of enuresis include a diverse range of factors (eg, physiological, psychological, genetic, neurologic developmental delay, and consumption of foods or drinks with diuretic effects). Unsurprisingly, there is a correspondingly diverse range of conventional and complementary interventions available to individuals with nocturnal enuresis.

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Conventional interventions include pharmacological interventions (eg, desmopressin, tricyclic and related drugs, and other drugs),[2–4] and simple and complex behavioral interventions (eg, reward systems, fluid deprivation, and alarms).[5–7] Less traditional interventions include acupuncture, chiropractic, dietary and restricted foods regimens, homeopathy, and hypnosis.[1] It is also important to note that about 15% of children with enuresis become dry each year without any treatment whatsoever.[8]

Although there is limited anecdotal evidence suggesting that children with enuresis may benefit from chiropractic care,[9–12] systematic reviews of randomized controlled trials (RCTs) have concluded that there is insufficient or inconclusive evidence for the effectiveness of chiropractic intervention for nocturnal enuresis.[1,13–15] These systematic reviews are based on the 2 RCTs that have been published to date.[16,17] Unfortunately, both of these trials suffer from methodological shortcomings that substantially limit the conclusions that can be drawn from them.

Inconclusive empirical evidence and positive anecdotes warrant further investigations of chiropractic care for nocturnal enuresis. Therefore, the purpose of this case report is to describe the chiropractic management of an 8-year-old girl with nonorganic nocturnal enuresis. We also provide a review of the current best evidence of chiropractic intervention for nocturnal enuresis and recommendations for future clinical trials.

Case Report

An 8-year-old, white female patient presented with her mother to a chiropractic clinic seeking a second opinion for persistent nighttime bedwetting. The patient reported not having experienced a dry night and denied any history of trauma, accidents, or major falls or injuries. The patient presented with no other comorbidities or complaints such as low back or pelvic pain.

The patient had received standard medical care from her general practitioner, as well as from specialists at the pediatric department at the local hospital. Urine tests and magnetic resonance imaging of the lumbar spine and pelvis had not revealed any abnormalities, and organic or pathological cause had been identified. The patient had been treated with conventional pharmacotherapy (60 μg desmopressin [Ferring Pharmaceuticals, Germany] once per day for 3 weeks followed by 60 μg desmopressin twice per day for 1 week) without any change in bedwetting. In consultation with her general practitioner, the patient had discontinued medication because of adverse reactions (stomach pain). Behavioral interventions such as fluid deprivation, scheduled wakening, and alarms had been trialed for several weeks without any change in nocturnal enuresis.

The chiropractic consultation included an unremarkable neurological and orthopedic examination. Joint motion palpation of the spine was similarly unremarkable, except for a moderate restriction of posterior to anterior glide of the left sacroiliac joint (SIJ). There was also marked tenderness to palpation over the left SIJ.

Chiropractic treatment consisted of gentle isometric pressure over the left paraspinal soft tissues at the lumbrosacral junction, followed by a single high-velocity, low-amplitude (HVLA) manipulation of the left SIJ. The patient was positioned on her right side in a basic lumbar roll position, and the SIJ manipulation involved a soft pisiform contact immediately inferior to the patient's left sacral ala with a force vector in the posterior to anterior direction. No additional interventions or specific take-home instructions were provided at this stage.

Immediate reexamination of the left SIJ revealed increased joint motion and diminished tenderness to palpation. During a follow-up consultation 1 week later, the patient reported no bedwetting since the first consultation. On examination, the SIJs exhibited normal joint motion, and no further treatment was provided.

Nine days later, however, the nocturnal enuresis relapsed, and the patient experienced 8 subsequent wet nights before again presenting to the chiropractic clinic. The patient denied experiencing any falls or injuries before the relapse. Similar to the initial consultation, the chiropractic examination revealed a restriction of posterior to anterior glide of the left SIJ accompanied by tenderness to palpation over the left SIJ. The patient received a single HVLA manipulation of the left SIJ on 2 occasions, 8 days apart, and the bedwetting ceased once again after the second treatment. Thus, from the initial presentation to the final discharge 3 weeks later, the patient received a total of 3 HVLA manipulations of the left SIJ.

Follow-up phone calls to the patient's mother at 1 and 3 months after the last visit revealed only 4 subsequent episodes of nocturnal enuresis. The patient's mother reported that the patient's behavior had changed substantially over the last 3 months, including engaging in more play and sleeping over with friends without fear of being wet. The patient's mother consented to have her daughter's personal health information published without divulging personal identifiers.